INTRODUCTION TO CODING

User Manual

TNT V5
2015

(Figures and Codes based on GB TGI 2007 Q1 Oct- Sept 2006)

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INFORMATION ABOUT SURVEY CODING

Each item of data that is included in a survey is given its own unique code for use in analysis programs. All coding consists of three parts - **Card**, **Column** and **Punch**. On large surveys, most of the coding will have been done for you by Telmar, but you can code items manually if you wish! Telmar often use mnemonics too to make this easier!

Card - this is 1 or 2 digits
Column - this must always be 2 digits (so column 1 would become 01)
Punch - one final digit refers to the question (this could be a number or a letter which is used when there are more than 10 questions in a column)

		Card Number (shown at top of the page) **(32)**	
TELEVISION SET(S) How many television sets do you have in your household in working order?			
	Column Number is here		**Punch No**
None	**40**		**y**
One			**x**
Two			**0**
Three			**1**

Therefore, the code for a person with two television sets in their household in working order would be **032`40`0** - (**Card** 032, **Column** 40 and **Punch** 0).

Mnemonics are letter codes that Telmar create for frequently used coding in large surveys such as publications or demographics - so when you are coding and see letters instead of numbers, don't worry - it is just Telmar trying to make it easier to use! An example of this would be the newspaper **The Sun** - the mnemonic for this is **SUN**.

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USING SIMPLE CODING IN TNT+

TNT+ is a program that analyses one set of variables against any other set of variables. It is often used to identify target markets for advertising campaigns or to investigate a publication's profile.

A **TNT+** run is made up of three sets of variables which are the **Tables**, **Columns** and **Rows** which are then cross-tabulated.

To simplify this, we will go through an example of what you might put in your **Tables**, **Columns** and **Rows**!

Let's say you wanted to find out how many men of different age bands live in certain counties - you would code this up as follows:-

Table	**Men**
Columns	**Age Bands**
Rows	**Counties**

In the Coding screen click on **Tables**, in the electronic codebook then double click on the **Demographics: Basic** section, then double click on **Demographics** section to open the listing fully, next double click on **All Men**.

Next, click on **Columns,** again in the **Demographics: Basic** section – find the age bands, then click and highlight the different age bands, click on the **Green Arrow** to separate the codes.

Finally, click on **Rows**, you will find the geographic regions under **Demographics: Basic**, click and highlight the different regions, click the **Green Arrow** .

Click **Crosstab** to see your report, it shows you exactly how many men of each age group live in each of the different regions!

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COMBINING CODES WITH AND/OR/ANY/ALL/NOT/SUM

The previous example was created using straightforward table, columns and rows with simple demographic groups separating each one out. However, sometimes you may wish to define more sophisticated target markets and/or users of several brands and you can do this by combining coding together using one of four different operators. These are:- **OR, ANY, AND, ALL, NOT, SUM**

OR means people who are one code **OR** another code (either but not both).

ANY means **ANY** of a set of selected codes - this would be same as selecting each one individually with **OR** between each code.

AND means people who are one code **AND** another code (both).

ALL means **ALL** of a set of selected codes - this would be same as selecting each one individually with **AND** between each code.

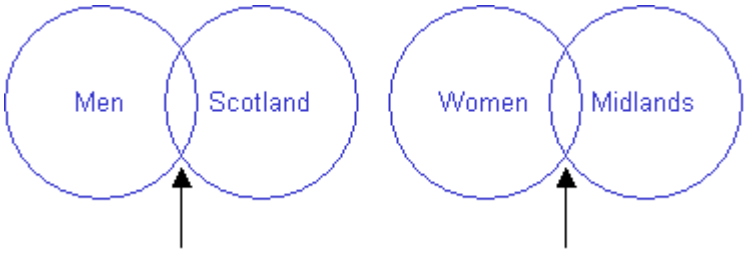
NOT is used to exclude a group of people.

SUM is used to count the number of brands/titles that people use/read.

Importance Of Brackets (..) And An Example Of Manual Brackets

Brackets must be used when combining several sets of codes of a similar type together, in order to keep the coding within the brackets together. The brackets tell **TNT+** to calculate the coding between the brackets as a single calculation before doing any other calculations. This is particularly important where you are combining coding using **AND** + **OR**. If you use **ANY** or **ALL**, the brackets are automatically put around the selected coding for you, see below.

Take the following example:- Men **AND** Scotland are a completely different set of people to the Women **AND** Midlands, so you will need **OR** between the two groups to separate them. But you will need to tell TNT+ to calculate the Men **AND** Scotland first, so this needs to be bracketed, then you would insert the **OR** and then you will need to put brackets around the Women **AND** Midlands so that this is calculated afterwards.



(Men **AND** Scotland) **OR** (Women **AND** Midlands)

Therefore, to code people who are **Men** and **Scotland** or **Women** and **West Midlands** you will use **AND**, **OR**, **AND** with **brackets** around each segment as follows:-

From the electronic codebook, double click on the **Demographics:Basic** section, then double click on **Demographics** section to open the listing fully, then double click on **Men**, then click on **AND**, then double click on **Scotland**, then click on **(..)**which will put brackets around the code so far.

Then click on **OR**, then double click on **Women**, then click on **AND**, then double click on **West Midlands**. Click and drag to highlight the last part of the coding (the Women and West Midlands) in the grid,

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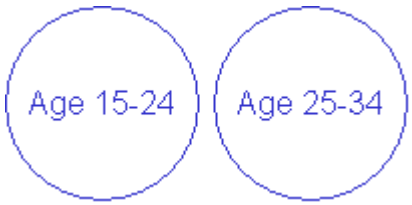
then click on the **(..)** button to put brackets around it. The coding appears as:- **(MM AND SC) OR (WW AND WM)**

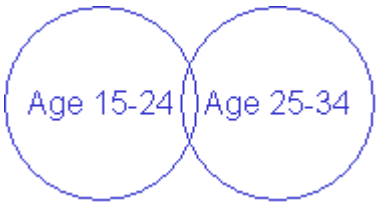
An Example Of Using OR

OR means people who are one code **OR** another code - for example one brand **OR** another.

When you are using demographics, you need to be aware that people can only fall into one category of a demographic type code (for example, age bands) and not several - in other words they are mutually exclusive. Therefore to combine several age bands together, you would use **OR** between the age bands. You will also need to put brackets around the age band coding sequence.



This would mean (15-24 **OR** 25-34)



This would mean 15-24 **AND** 25-34 and no-one can be **two** age bands!

Therefore, to code people who are **15-34** (i.e. two age bands), you will need to use **OR** between the age band codes as follows:-

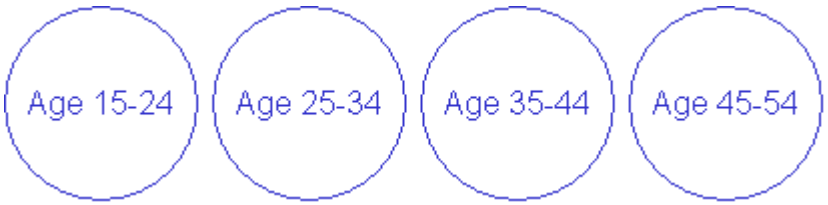
From the electronic codebook, double click on the **Demographics:Basic** section, then double click on **Demographics** section to open the listing fully, then double click on ***Age* 15-24**, then click on **OR**, then double click on ***Age* 25-34**. Then highlight the coding and click on **(..)** which will bracket the selected coding.

The coding appears as: **(A1524 OR A2534)**

An alternative method would be to use **ANY**, see below.

An Example Of Using ANY

ANY means **ANY** of a set of selected codes - this would be same as selecting each one individually with **OR** between each code. However, the advantage of using **ANY** instead of **OR** is that it will put **OR** between the codes at the same time as well as putting **brackets** around the complete set of coding.



This would mean people (Age 15-24 **OR** 25-34 **OR** 35-44 **OR** 45-54)

Therefore, to code people who are **15-54**, you will use **ANY** to put **OR** between the age band codes and it will automatically put the whole code in brackets as follows:-

From the electronic codebook, double click on the **Demographics:Basic** section, then double click on **Demographics** section to open the listing fully, then click and drag over ***Age* 15-24**, ***Age* 25-34**, ***Age* 35-44** and ***Age* 45-54** and they will all be highlighted, then click on **ANY**.

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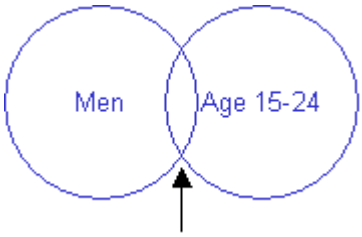
The coding appears as: **(A1524 OR A2534 OR A3544 OR A4554)**

An Example Of Using AND

AND means people who are one code **AND** another code (i.e. both codes).

As already mentioned, **AND** cannot be used between demographic codes of the same type (i.e. age bands), but **AND** can be used between different types of demographics (i.e. sex and age bands).



This would mean (Men **AND** Age 15-24)

Therefore, to code **Men** who are **15-24** you will need to use **AND** as follows:-

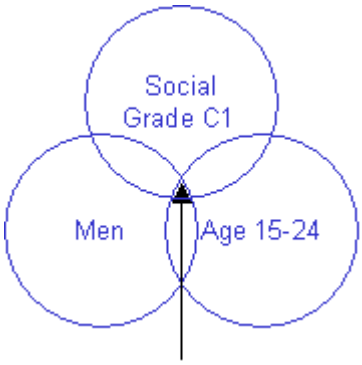
From the electronic codebook, double click on the **Demographics:Basic** section, then double click on **Demographics** section, then double click on **Men,** then click on **AND**, then double click on **Age 15-24**. Then highlight the coding and click on **(..)** which will bracket the selected coding.

The coding appears as: **(MM AND A1524)**

An alternative method of doing this would be to use **ALL**, see below.

An Example Of Using ALL

ALL means **ALL** of a set of selected codes - this would be same as selecting each one individually with **AND** between each code. However, if you are selecting several codes to combine using **AND**, the advantage of using **ALL** instead of **AND** is that it will put **AND** between the codes at the same time as well as putting brackets around the whole set of coding.



This would mean (Men **AND** Age 15-24 **AND** Social Grade C1)

Therefore, to code people who are **Men** and **15-24** and **Social Grade C1**, you will use **ALL** to put **AND** between the codes and put the whole code in brackets as follows:-

From the electronic codebook, double click on the **Demographics:Basic** section, then double click on **Demographics** section to open the listing fully, then click on **Men**, then press the **Control** key and click on **Age 15-24**, then still pressing the **Control** key, click on **Social Grade C1**, then click on **ALL**.

The coding appears as: **(MM AND A1524 AND C1)**

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Using Test All

Once you have created a combination of coding in the electronic codebook, it is a good idea to see how big the sample size would be for that coding.

The **Test All** button allows you to view the sample and audience sizes for the coding you have just completed. Let's take the example from above - readers of **The Sun** or **The Star** but **not** the **Daily Mirror**.

In the coding screen, click on the **Test All** button and scroll across until you see a column for **Respondents** and a columns for **Population** figures.

The **Respondents** figure shows how that there were **3,546** respondents to the survey who read **The Sun** or **The Star** but **not** the **Daily Mirror** which would give a **Population** (Audience in '000s) figure of **7,395,000**.

Golden Rules When Combining Codes

We have covered the different coding operators- AND, OR, ANY and ALL and how they are used. However there are two coding rules you need to follow when combining codes.

Rule 1	**Mutually exclusive codes cannot be combined with AND, only OR.** For example, if you want to code 45-64 year olds you may enter 45-54 **AND** 55-64, however after clicking **Test All** you get zeros. This is because you are asking the computer to code people who are both age groups. Instead, you need to code 45-54 **OR** 55-64. After clicking Test All you will get Resps = 9009 and Population = 16566.
Rule 2	**When combining codes using both AND and OR, use brackets.** For example, if you want to code 45-64 year olds who are Married you may enter Married **AND** 45-54 **OR** 55-64. However, you are asking the computer to code Married 45-54 year olds **AND** all 55-64 year olds. You need to bracket off the **OR** codes, this can be done manually or using the **ANY** button as explained above. To code this correctly you need to code Married **AND** (45-54 **OR** 55-64). After clicking on Test All you will get Resps = 6583 and Population = 10806.

An Example Of Using NOT

NOT is used to exclude a group of people from the end result. Say you want people who buy one brand **OR** another **AND** they do **NOT** buy another separate brand.

Take the example shown in the diagram below. These people read The Sun **OR** The Star **AND NOT** the Daily Mirror.

The coding for the people who read The Sun **OR** The Star will need to have brackets round it so that this is calculated first, before creating the **AND NOT** part of the coding to exclude from the figure of the calculation of The Sun **OR** The Star.

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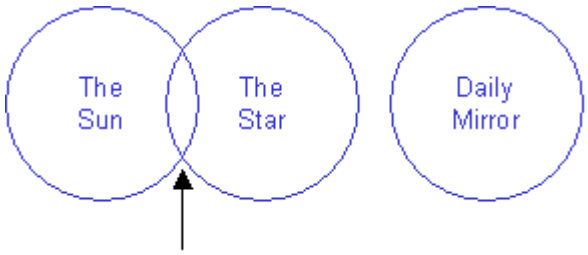

(The Sun **OR** The Star) **AND NOT** Daily Mirror

Therefore, to code people who read **The Sun** or **The Star** but not the **Daily Mirror**, you will need to use **OR**, **AND** with **brackets** around the first segment as follows:-

From the electronic codebook, double click on the **Publications A.I.R.: (Grouped by Frequency)** folder, then double click on **National Dailies** section, then double click on **The Sun**, then click on **OR**, then double click on **The Star**, then click on the **(..)** button which will put brackets around the whole code so far.

Then click on **AND**, then click on **NOT**, then double click on **Daily Mirror**.

The coding appears as: **(SUN OR DST) AND NOT DMR**

An Example Of Using SUM

You can use the **SUM** function to ask **TNT+** to find out count the number of brands/titles that people use/read.

Let's find out how many people read **more than 2 Sunday newspapers**.

From the electronic codebook, double click on the **Publications - A.I.R. (Grouped By Frequency)** folder, then double click on **National Sundays** sub-folder. Click and drag over all the Sunday newspapers that you want TNT+ to count, then click on the **SUM** button which will put + signs between each newspaper code and brackets around the end, as follows:-

(DSS + IOS + MOS + NOW + OBS + SEX + SMR + SPL + STL + STI)

Now click on the **>=** button and type **2** in the Value field, then click on **OK**. This appears as follows:-

(DSS + IOS + MOS + NOW + OBS + SEX + SMR + SPL + STL + STI) >= #2

TNT+ will count up how many newspaper titles each respondent reads and will tell you how many respondents get a score of 2 or more!

Other ideas for this feature - you could find how many people are loyal users of a brand by finding out how many people only use one brand in your columns and then put the brands themselves in the rows to see which brands have the greatest brand loyalty!

TO CODE UP SOLUS READERSHIP OF PUBLICATIONS

You can use the **SOLUS** button to quickly code Solus readers of publications. The **SOLUS** button is found in the **More…** drop down menu in the top grey toolbar.

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For example, let's find out how many people that read a **Sunday Newspaper** are **Solus readers** and code this against the **Sunday Newspapers** themselves.

Put All Adults, found in **Demographics:Basic** in your Table/Base. In your **Columns**, double click on the **Publications - A.I.R. (Grouped by Frequency), National Sundays**. Click and drag over all the Sunday newspapers that you want TNT+ to include, then click on the **SOLUS** button. This will create a **SUM** code with + signs between each newspaper code, brackets around the codes and = **#1** on the end, as follows:-

(DEX + DML + DRC + DST + DTL + STD + FTI + GUA + IND + DMR + RAC + SUN + TMS)= #1

Click and drag over the same **Sunday Newspapers** used above, next use the green arrow to put them in your **Rows**. Your **Crosstab** will look like this:

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TO UPWEIGHT DATED ITEMS IN CODING

With surveys that are quarterly or bi-annual, research companies often add new codes to the survey. They normally denote these by putting the month/year they were added to the survey in brackets after the code to inform you when it was added to the survey. For example, a code added in January 2006 would show as **(+01/06)**. These are known as flags.

Since the code has not been in the survey you are using for the whole year, you will need to **weight** it so that it is equal to the other codes that have been there for the whole survey year. There are two approaches to dealing with part-period data, the following will give you an overview of these methods though it is advisable to call the helpdesk if unsure which one to use.

Some industry surveys have quarterly updates, therefore flagged items will have been on the survey for either 3 months, 6 months or 9 months as opposed to the whole year. These need to be multiplied as follows:

3 months (1 quarter) **x 4** = 12 months

6 months (2 quarters) **x 2** = 12 months

9 months (3 quarters) **x 1.33** = 12 months

You can check what each flag means and what it needs to be multiplied by to give a full year's worth of data by looking in the electronic codebook under **Information on Flagging and Weighting**.

Upweight Individual Items

If you are coding a single item that has been flagged and you are not combining it with any other codes it is possible to upweight individual items. With this method it is important to avoid having flagged items in both your Columns and Rows.

For example, we want to code **Men** and **Women** against **Life Events- Experienced In The Last 12 Months (+01/06)**. The flagging next to Life Events shows that it has only been on the survey since January 2006. When we check the Information on Flagging and Weighting section it tells us that items flagged (+01/06) have been on for 3 quarters and so needs to be multiplied by 1.33. This is how you would do it:

Double click on **All Adults** in **Demographics: Basic** to put it in your **Base**. Highlight **Men** and **Women** and use the Green Arrow to put them in your **Columns**. Filter on **Life Events** and highlight the topline heading **Life Events- Experienced In The Last 12 Months** and use the Green Arrow again to put all the life events in the **Rows**. Next click on the ***** button in the top grey toolbar, then click **Number** and enter 1.33 in the Value field. Lastly click on (..) in the middle grey column to put brackets around the coding. This will show as follows:-

1 Table | 2 Columns | 16 Rows

16 Rows

	Title	Code
1	Finish School (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`Y * #1.33)
2	Start University (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`X * #1.33)
3	Start First Job (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`0 * #1.33)
4	Change Job (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`1 * #1.33)
5	Move Out Of Parental Home (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`2 * #1.33)
6	Move In With Partner (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`3 * #1.33)
7	Get Married (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`4 * #1.33)
8	Purchase A House (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`5 * #1.33)
9	Make Major Home Improvements (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`7 * #1.33)
10	Birth Of First Child (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`8 * #1.33)
11	Birth Of Second Or Subsequent Child (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`10`9 * #1.33)
12	Child Goes To University (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`11`Y * #1.33)
13	Child Gets Married (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`11`X * #1.33)
14	Birth Of Grandchild (+01/06) - Life Events - Experienced In Last 12 Months * #1.33	(035`11`0 * #1.33)
15	Divorce (+07/06) - Life Events - Experienced In Last 12	(035`11`2 * #1.33)

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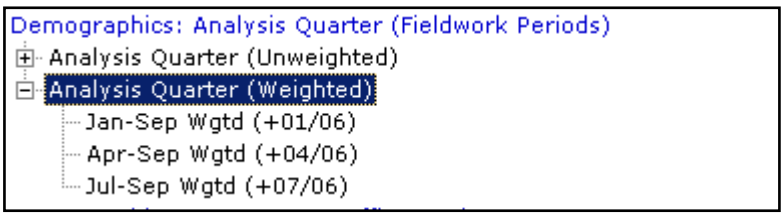
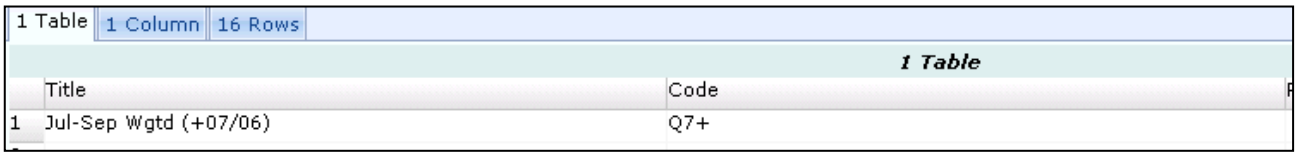
Weight Through The Base

However, there are circumstances when you need to combine flagged items in your coding, and/or have flagged codes in both your Columns and Rows. In these situations you weight through the base, that is by placing the weighted factor in you Base/Table it is filtered throughout the coding in your Columns and Rows and you don't need to do any individual coding. Weighting through the Base coding is found under **Demographics: Analysis Quarter (Fieldwork Periods), Analysis Quarter (Weighted).** You always use the latest fieldwork period flagged in your coding.



For example, we want to find out which **age group** is **drinking new brands of lager**. Click on the **Columns** tab, **Filter** on **Bottled Lager**, then open up the section and double click on **Brands- All Users**. We can tell which are the newest brands because they have flags beside them. Hold down Control and select all the flagged items and click **ANY**. The latest fieldwork period used is (+07/06), as Brahma is the newest lager to be added to the list, therefore we need to put this in our Base. Click on the **Table/Base** tab, double click on **Jul-Sep Wgtd (+07/06)** in **Analysis Quarter (Fieldwork Periods).** In the **Rows** use the green arrow to enter all the **age breaks**.



Now everything in your CrossTab will be representative of a full year's worth of data, despite all the codes in the columns being flagged.

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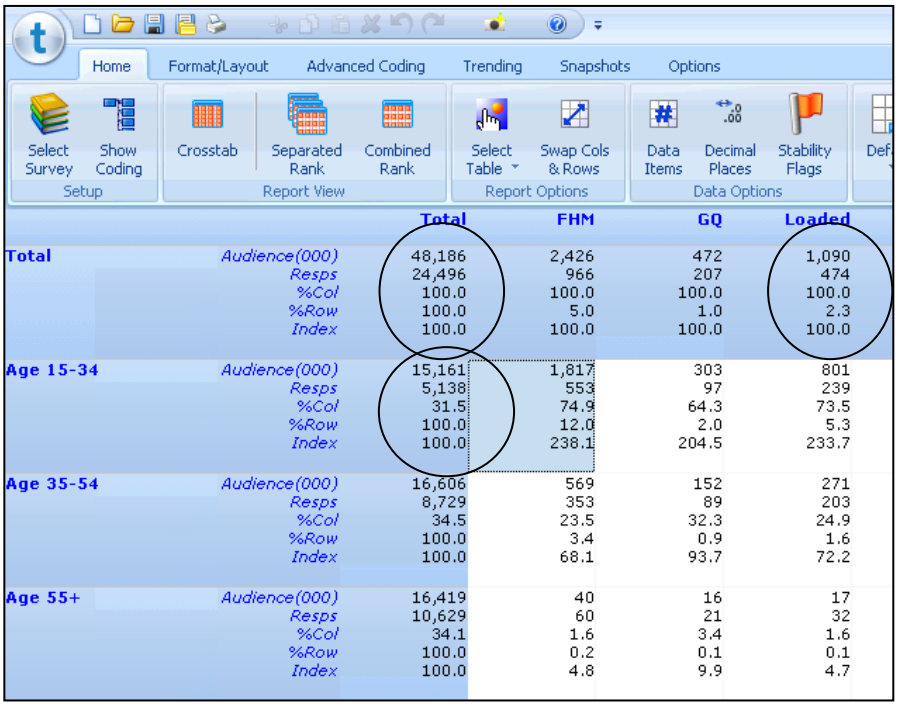
How To Read TNT+ Runs



		Total	FHM	GQ	Loaded
Total	Audience(000)	48,186	2,426	472	1,090
	Resps	24,496	966	207	474
	%Col	100.0	100.0	100.0	100.0
	%Row	100.0	5.0	1.0	2.3
	Index	100.0	100.0	100.0	100.0
Age 15-34	Audience(000)	15,161	1,817	303	801
	Resps	5,138	553	97	239
	%Col	31.5	74.9	64.3	73.5
	%Row	100.0	12.0	2.0	5.3
	Index	100.0	238.1	204.5	233.7
Age 35-54	Audience(000)	16,606	569	152	271
	Resps	8,729	353	89	203
	%Col	34.5	23.5	32.3	24.9
	%Row	100.0	3.4	0.9	1.6
	Index	100.0	68.1	93.7	72.2
Age 55+	Audience(000)	16,419	40	16	17
	Resps	10,629	60	21	32
	%Col	34.1	1.6	3.4	1.6
	%Row	100.0	0.2	0.1	0.1
	Index	100.0	4.8	9.9	4.7

Loaded

Audience:

Loaded has a total readership of 1,090,000.

Resps:

474 Adults who were interviewed for the survey claimed readership of Loaded.

% Row:

The percentage of All Adults claiming readership of Loaded. Therefore, of All Adults in Great Britain, 2.3% of them read Loaded. (i.e. Read Across, then Up)

Calculation

Total Readership for Loaded ÷ Total Population of All Adults x 100

1,090 ÷ 48,186x 100= 2.3%

Totals

Audience:

Total Population of Adults Aged 15+ in Great Britain= 48,186,000.

Resps:

24,496 Adults Aged 15+ were interviewed for the survey.

Totals

Audience:

Total population of Adults Aged 15-34 in Great Britain = 15,161,000.

Resps:

5,138, Adults Aged 15-34 were interviewed for the survey.

% Col:

The percentage of All Adults Aged 15-34 in Great Britain, Therefore, of All Adults, 31.5% are Aged 15-34.(i.e. Read Up, then Across)

Calculation

Population of 15-34 Yr Olds ÷ Population of Adults x 100

15,161,000 ÷ 48,186x 100 = 31.5%

Index Calculation

Loaded 15-34 Yr Old % Col ÷ Total 15-34 Yr Old % Col x 100

73.5 ÷ 31.5 x 100 = 233.7%

Loaded

Audience:

There are 801,000 15-34 year old Loaded readers in Great Britain.

Resps:

239 Adults Aged 15-34 who were interviewed for the survey claimed readership of Loaded.

% Col:

73.5% of Loaded readers are Aged 15-34.

Calculation

Loaded 15-34 Yr Old Readership ÷ Loaded Adult Readership x 100

801 ÷ 1,090 x 100 = 73.5%

% Row:

5.3% of 15-34 year olds read Loaded.

Calculation

Loaded 15-34 Yr Old Readership ÷ 15-34 Yr Old Population x 100

801÷ 15,161 x 100 = 5.3

Index

Based on All Adults (100), Above 100 = More likely, Below 100 = Less Likely.

Therefore Loaded readers are 133.7% more likely than the average Adult to be Aged 15-34.

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